This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-7. (Cancelled)

8. (Currently Amended): An isolated nucleic acid encoding an endothelial estrogen regulated gene-7 protein having an amino acid sequence which has at least about 75% sequence similarity with SEQ ID NO:2, which endothelial estrogen regulated gene-7 protein has (i) lysyl oxidase activity; (ii) comprises four copies of a scavenger receptor cysteine rich domain having a sequence ~~greater than~~ at least about 80% ~~similar~~ identical to a sequence selected from the group consisting of SEQ ID NOs: 3, 4, 5, and 6; and (iii) comprises a ~~conserved catalytic domain of lysyl oxidase enzymes having a~~ sequence as depicted in SEQ ID NO: 7.

9. (Original): The nucleic acid of claim 8 which is a cDNA.

10. (Previously Presented): The nucleic acid of claim 8, wherein the endothelial estrogen regulated gene-7 protein encoded for is a human endothelial estrogen regulated gene-7 protein.

11. (Previously Presented; Allowable): The nucleic acid of claim 53, wherein the endothelial estrogen regulated gene-7 protein encoded for has an amino acid sequence as

depicted in SEQ ID NO: 2.

12. (Previously Presented; Allowable): The nucleic acid of claim 53 which comprises a nucleotide sequence as depicted in SEQ ID NO: 1.

13. (Currently Amended): A vector comprising a nucleic acid encoding a fragment of an endothelial estrogen regulated gene-7 protein operatively associated with an expression control sequence, wherein the fragment is selected from the group consisting of:

a) a polypeptide having at least about 75% sequence similarity with SEQ ID NO: 2,

b) a polypeptide comprising from one to four copies of a scavenger receptor cysteine rich domain, said scavenger receptor cysteine rich domain having a sequence ~~greater than~~ at least about 80% ~~similar~~ identical to a sequence selected from the group consisting of SEQ ID NOs: 3, 4, 5, and 6;

c) a polypeptide comprising a conserved catalytic domain of lysyl oxidase enzymes having a sequence as depicted in SEQ ID NO: 7; and

d) any combination thereof.

14. (Previously Presented): The vector according to claim 13, wherein the fragment of an endothelial estrogen regulated gene-7 protein is a full length endothelial estrogen regulated gene-7 protein.

15. (Original): A host cell transfected with the vector of claim 14.

16. (Cancelled)

17. (Previously Presented): A method for producing endothelial estrogen regulated gene-7 protein, which method comprises isolating endothelial estrogen regulated gene-7 protein produced by the host cells of claim 15, wherein the host cells have been cultured under conditions that provide for expression of the endothelial estrogen regulated gene-7 protein by the vector.

18. (Currently Amended): An isolated oligonucleotide of no more than 100 nucleotides comprising at least 20 consecutive nucleotides of SEQ ID NO: 1, that hybridizes under stringent conditions with a nucleic acid having a nucleotide sequence as depicted in SEQ ID NO: 1, said stringent conditions ~~including~~ corresponding to 50% formamide, 4XSSC at 42° C.

19. (Previously Presented): The oligonucleotide of claim 18, wherein at least 30 nucleotides are contiguous nucleotides of SEQ ID NO: 1.

20. (Previously Presented): The oligonucleotide of claim 18 which is detectably labeled.

21. (Withdrawn): An antibody that specifically binds to the EER-7 protein of claim 1.

22. (Withdrawn): A method for detecting an EER-7 protein, which method comprises detecting binding of the antibody of claim 21 to a molecule in a sample suspected of containing an EER-7 protein, wherein the antibody is contacted with the sample under conditions that permit specific binding with any EER-7 protein present in the sample and binding of the antibody to the molecule in the sample indicates the presence of EER-7.

23. (Withdrawn): A method for detecting expression of EER-7, which method comprises detecting mRNA encoding EER-7 in a sample from a cell suspected of expressing EER-7.

24. (Withdrawn): The method according to claim 23 wherein mRNA encoding EER-7 is detected by hybridization to an EER-7-specific nucleic acid.

25. (Withdrawn): The method according to claim 24 wherein the EER-7-specific nucleic acid is at least 10 nucleotides in length and has a sequence identical to a sequence of the same number of bases in SEQ ID NO: 1, or the complementary sequence thereof.

26. (Withdrawn: Previously Presented): An assay system for identifying selective estrogen receptor ligands, comprising two different populations of transformed cells that express different functional estrogen receptors, wherein one population expresses the ERα estrogen receptor and the other population expresses the ERβ estrogen receptor and wherein the number of cells in each population is sufficient to transcribe a detectable amount of mRNA encoding EER-7.

27. (Withdrawn): The assay system of claim 26, wherein the estrogen receptor is a human estrogen receptor.

28. (Withdrawn): The assay system of claim 26 which is an endothelial cell.

29. (Withdrawn): The assay system of claim 28 which is a human umbilical vein cell.

30-36. (Cancelled)

37. (Withdrawn): The method according to claim 36, wherein the second estrogen receptor is an ERβ.

38. (Withdrawn): The method according to claim 30, wherein the cell is an endothelial cell.

39. (Withdrawn): The method according to claim 38, wherein the cell is a human umbilical vein cell.

40. (Withdrawn): The polypeptide fragment of claim 7, wherein the four copies of SRCR domains comprise the sequences as depicted in SEQ ID NOS: 3-6.

41. (Withdrawn): The polypeptide fragment of claim 7, having at least 46% sequence similarity to the catalytic domain of lysyl oxidase enzyme having an amino acid sequence as depicted as SEQ ID NO: 7.

42-44. (Cancelled)

45. (Withdrawn): A non-human EER-7 knockout animal, wherein endogenous EER-7 expression is suppressed in the animal.

46. (Withdrawn): A non-human animal transformed with a vector comprising a nucleic acid encoding a protein that regulates EER-7 expression, wherein the protein is operatively associated with an expression control sequence; wherein the animal expresses an EER-7 protein at a detectable level in response to estrogen.

47. (Currently Amended): The nucleic acid of claim 8, wherein the endothelial estrogen regulated gene-7 protein encoded for comprises four copies of a scavenger receptor cysteine rich domain having a sequence ~~greater than~~ at least about 80% ~~similar~~ identical to a sequence selected from the group consisting of SEQ ID NOs: 3, 4, 5, and 6.

48. (Currently Amended): The nucleic acid of claim 8, wherein the endothelial estrogen regulated gene-7 protein encoded for comprises four copies of a scavenger receptor cysteine rich domain having a sequence ~~greater than~~ at least about 80% ~~similar~~ identical to a sequence selected from the group consisting of SEQ ID NOs: 3, 4, 5, and 6.

49. (Currently Amended): The nucleic acid of claim 8, wherein the endothelial estrogen regulated gene-7 protein encoded for comprises four copies of a scavenger receptor cysteine rich domain having a sequence ~~greater than~~ at least about 80% ~~similar~~ identical to a sequence selected from the group consisting of SEQ ID NOs: 3, 4, 5, and 6.

50. (Previously Presented): The nucleic acid of claim 8, wherein the endothelial estrogen regulated gene-7 protein encoded for comprises four copies of a scavenger receptor cysteine rich domain having a sequence selected from the group consisting of SEQ ID NOs: 3, 4, 5, and 6.

51. (Previously Presented): The nucleic acid of claim 8, wherein the endothelial estrogen regulated gene-7 protein encoded for has an amino acid sequence that has at least about 80% sequence similarity with SEQ ID NO: 2.

52. (Previously Presented): The nucleic acid of claim 8, wherein the endothelial estrogen regulated gene-7 protein encoded for has an amino acid sequence that has at least about 85% sequence similarity with SEQ ID NO: 2.

53. (Previously Presented): An isolated nucleic acid encoding an endothelial estrogen regulated gene-7 protein having an amino acid sequence which has at least about 90% sequence identity with SEQ ID NO: 2.

54. (Previously Presented; Allowable): The isolated nucleic acid of claim 53, wherein the endothelial estrogen regulated gene-7 protein has an amino acid sequence that has at least about 95% sequence identity with SEQ ID NO: 2.

55. (Previously Presented): The vector of claim 13, wherein the fragment encoded for has specific binding activity with an anti-endothelial estrogen regulated gene-7 antibody.

56. (New) The oligonucleotide of claim 18, wherein it is no more than 60 nucleotides in length.

57. (New) The oligonucleotide of claim 18, wherein it is no more than 50 nucleotides in length.

58. (New) The nucleic acid of claim 11, which is a cDNA.

59. (New) The nucleic acid of claim 11, wherein the endothelial estrogen regulated gene-7 protein encoded for is a human endothelial regulated gene-7 protein.

60. (New) The nucleic acid of claim 12, which is a cDNA.

61. (New) The nucleic acid of claim 12, wherein the endothelial estrogen regulated gene-7 encoded for is a human endothelial regulated gene-7 protein.

62. (New) The nucleic acid of claim 54, which is a cDNA.

63. (New) The nucleic acid of claim 54, wherein the endothelial estrogen regulated gene-7 encoded for is a human endothelial regulated gene-7 protein.

64. (New) The vector of claim 13, wherein the fragment of an endothelial estrogen regulated gene-7 protein is a polypeptide having at least about 95% sequence similarity with SEQ ID NO: 2.

65. (New) An isolated oligonucleotide of no more than 100 nucleotides consisting essentially of at least 20 consecutive nucleotides of SEQ ID NO: 1, that hybridizes under stringent conditions with a nucleic acid having a sequence as depicted in SEQ ID NO: 1, said stringent conditions corresponding to 50% formamide, 4XSSC at 42°C.

66. (New) The nucleic acid of claim 8, wherein the endothelial estrogen regulated gene-7 protein is expressed in response to estrogen.

67. (New) The vector of claim 13, wherein the endothelial estrogen regulated gene-7 protein is expressed in response to estrogen.

68. (New) The isolated nucleic acid of claim 53, wherein the endothelial estrogen regulated gene-7 protein has lysyl oxidase activity.